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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,949	04/25/2001	Matthew L. Hill	YOR920000686US1	6218

7590 05/07/2004  
Ryan, Mason & Lewis, LLP  
90 Forest Avenue  
Locust Valley, NY 11560

EXAMINER

MIZRAHI, DIANE D

ART UNIT PAPER NUMBER

2175

10

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/841,949

Applicant(s)

HILL ET AL.

Examiner

DIANE D. MIZRAHI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,13,16-18,20,21,28 and 31-33 is/are rejected.
- 7) ☒ Claim(s) 4,7-12,14,19,22-27 and 29 is/are objected to.
- 8) ☒ Claim(s) 15 and 30 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

DIANE D. MIZRAHI  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

**III. DETAILED ACTION**

Claims 1-14, 16-29 and 31-33 are presented for examination.

Claims 15 and 30 should be canceled by Applicant.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5,6,13,16-18,20-21,28, and 31-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Hosagrahar V. Jagadish et al. (US Patent No. 6,401,088 B1 and Jagadish hereinafter).

Regarding Claims 1, 16 and 31-33, Jagadish teaches a method of segmenting a set of data elements into one or more groups of data elements representing one or more objects, the method comprising the steps of: generating an optimized search

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function (i.e. optimizing structured query language) (col 1, lines 19-31); applying the optimized search function to the data elements of the set of data elements so as to prune a search space associated with the set of data elements (i.e. the substring in the tree... The storage requirements ...proposed for estimating substring selectivity using another variation of the suffix tree... a pruned count-suffix tree ("PST") which retains only those substrings, and their counts, for which the count exceeds some prune threshold) (col 1, lines 32-45); and applying a match function to the pruned search space so as to segment the set of data elements into the one or more groups of data elements representing the one or more objects (i.e. a pruned count-suffix tree ("PST") which retains only those substrings, and their counts, for which the count exceeds some prune threshold) (col 1, lines 32-45).

Regarding Claims 2 and 17, Jagadish teaches wherein the optimized search function is generated based on a randomly selected portion of data elements from the set of data elements (i.e. probability) (col 3, lines 47-62).

Regarding Claims 3 and 18, Jagadish teaches wherein the step of generating the optimized search function further comprises the step of evaluating two or more search functions to determine which one of the two or more search functions

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substantially meets a particular match function criterion (i.e. greedy parsing) (col 3, lines 15-31).

Regarding claims 5 and 20, Jagadish teaches wherein at least one of the two or more search functions are selected from a catalog of candidate search functions (i.e. for indexing substrings) (col 1, lines 32-46).

Regarding Claims 6 and 21, Jagadish teaches wherein the step of generating the optimized search function further comprises the step of employing a learning algorithm (col 6, lines 41-46).

Regarding Claims 13 and 28, Jagadish teaches wherein at least one of the set of data elements and the match function is provided by a user (i.e. person skilled in the art) (col 8, lines 67).

**Allowable Subject Matter**

Claims 4, 7-12, 14, 19, 21-27 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's particular method of segmenting a set of data elements into one or more group of data elements representing one or more objects in which two or more search functions is

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unoptimized, adaptive mutation of one or more search functions includes random mutation, learning algorithm including combining two or more search functions during the generation of the optimized search function and set of data elements includes unstructured image data in combination with the other limitations of the claims, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane D. Mizrahi whose telephone number is (703) 305-3806. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (703) 305-3830. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-9000 for regular communications and (703) 305-9000 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9001.



Diane Mizrahi  
Primary Patent Examiner  
Technology Center 2100

May 1, 2004